



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/813,991

03/31/2004

Christophe Del Toso

852263.412

6081

38106

7590

07/01/2008

SEED INTELLECTUAL PROPERTY LAW GROUP PLLC  
701 FIFTH AVENUE, SUITE 5400  
SEATTLE, WA 98104-7092

EXAMINER

TRAN, KHAI

ART UNIT

PAPER NUMBER

2611

MAIL DATE

DELIVERY MODE

07/01/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/813,991	<b>Applicant(s)</b> DEL TOSO ET AL.	
	<b>Examiner</b> KHAI TRAN	<b>Art Unit</b> 2611	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 June 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 8 is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-10, 15-24 and 28, 29-30 is/are rejected.
- 7) ☒ Claim(s) 6, 11-14 and 25-27 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn. Claims 1-30 are pending in this Office action.

***Claim Rejections - 35 USC § 103***

2. Claims 1-5, 7-10, 15, 16-20, 21-24, 28, 29, 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arai (U.S. Pat. 7,224,672) in view of Palm (US 2000/0184520).

Regarding claim 1, Arai discloses a process for configuring a symmetric xDSL-type modem, comprising: detecting a criterion corresponding to an asymmetric operating mode of an ADSL-type; wherein detecting such criterion includes obtaining an estimation of a length of a line. Arai fails to disclose a step of disabling a number of carriers in order to establish the asymmetric operating mode in response to the detection of the criterion.

Palm discloses in (an abstract) an estimate of the line length/attenuation (see [0246]), and a prescribed number of carriers are defined, the density of the carriers can be reduced by setting the transmit power level of individual carriers to zero (see [0162], [0184], [0185]). Therefore, the carriers can be reduced or disabled based on the detection of the criterion, and establish the asymmetric operating mode. It would have been obvious to one having ordinary skill in the art at the time the invention was made to increase the transmit power level.

Regarding claim 2, Arai discloses a VDSL-type modem, and ADSL mode. Therefore, the operation of the VDSL modem and ADSL modem is inherent to

Art Unit: 2611

operate at 4096 carriers (VDSL modem) and at 356 carriers (ADSL modem).

Regarding claim 3, Arai discloses wherein the detection of the criterion further includes a detection of signals defined in recommendation G.994.1 or a measurement of the signal to noise ratio per carrier (col. 5, lines 14-21).

Regarding claim 4, Arai discloses wherein the criterion is the estimation of the line length derived from a timing advance measurement (col. 2, lines 11-17).

Regarding claim 5, Arai further discloses deactivating a cyclic suffix in a transmit path and digital power spectral density shaping filtering for conformity to an ADSL-type mask, associated with a digital echo suppression filter and a temporal equalizer in a receive path (col. 14, lines 28-42).

Claims 7-10 are similar to claims 1-4. Therefore, claims 7-10 are rejected under a similar rationale.

Regarding claim 15, Arai also discloses wherein switch from ADSL mode to VDSL mode is accomplished in response to user control (col. 3, lines 36-40).

Claims 16-20 are similar to claims 1-2, 4-5. Therefore, claims 16-20 are rejected under a similar rationale.

Claims 21-24 are similar to claims 1-4. Therefore, claims 21-24 are rejected under a similar rationale.

Claim 28 is similar to claim 15. Therefore, claim 28 is rejected under a similar rationale.

Regarding claims 29, 30, Arai discloses wherein the detection or means for controlling enables top-down interoperability between the asymmetric

Art Unit: 2611

operating mode and the symmetric operation (col. 8, lines 44-65).

***Allowable Subject Matter***

3. Claims 6, 11-14, 25-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. The following is a statement of reasons for the indication of allowable subject matter: Arai fails to disclose a transmit path comprising: activating a digital power spectral density shaping filter (PSF) for conformity with an ADSL-type mask; deactivating a process for inserting a cyclic suffix after each symbol to be transmitted; activating a  $H^{-1}(f)$  pre-compensation before an inverse Fourier transform allowing to compensate for a phase and amplitude distortion introduced by the digital PSF; and in a receive path, activating a digital echo suppression filter and temporal equalizer.

***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHAI TRAN whose telephone number is (571) 272-3019. The examiner can normally be reached on 7:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Payne can be reached on (571) 272-3024. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2611

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KHAI TRAN/  
Primary Examiner, Art Unit 2611

6/24/2008